

## Case Report

# Iatrogenic Endometrioma: Case Report and Review of Literature

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**ABSTRACT**

This 38-year old multiparous female presented to the surgical clinic with a painful nodule on the left margin of the Pfannenstiel incision noticed three months after Cesarean Section (CS) and associated with regular cyclical pain. The nodule increased in size progressively over the next 36 months. Differential diagnosis included: foreign body granuloma, incisional hernia, traumatic neuroma

and irreducible inguinal hernia. CT-scan revealed that the mass was extra-abdominal and partially extra muscular. Excision revealed endometrial active tissue with no signs of malignancy.

This type of iatrogenic complication may be avoided, if meticulous intra-operative wound care is applied.

KEYWORDS: endometrioma, endometriosis, extrapelvic implants

**INTRODUCTION**

Endometriosis is ectopic active endometrial tissue that responds to hormonal stimulation and is found in 8-15% of all menstruating women. Endometrial explants develop a rich blood supply that enables them to survive and grow in any tissue outside their original location.

A cesarean section (CS) scar deposit of endometrial tissue is a rare event. The reported incidence is 0.03-1.7 percent<sup>[1]</sup>. The diagnosis can be a dilemma, and is usually reached only after exploration and tissue analysis.

Due to its hormonal dependency, these lesions tend to enlarge, become congested and bleed with each menstrual cycle. Women usually experience the pain and discomfort every month and remain symptomfree until the next cycle.

**CASE REPORT**

This 38-year old multiparous lady and mother of eight children had normal pregnancies and spontaneous vaginal delivery for all except the last pregnancy which ended by CS due to failure of labor to progress. She presented with a painful nodule on the left lateral aspect of the Pfannenstiel CS scar noticed three months post partum. Initially it was associated mild cyclical discomfort. The nodule increased in size over a period of 36 months and became painful at the end of each monthly cycle with radiation of pain to the left side to the abdominal wall and lower back. There were no skin changes, discharge or other associated symptoms.

Clinical examination revealed a middle age female with normal systemic examination. Local examination showed an obvious supra-pubic swelling, 8 x 7 cms in size, situated at the left lower margin of the Pfannenstiel CS scar. The overlying skin was normal with no signs of inflammation or discharge. The swelling was tender, firm in consistency and adherent to the underlying tissue.

Differential diagnoses included: incisional hernia, irreducible inguinal hernia, foreign body granuloma, and traumatic neuroma. A CT-Scan of the lower abdomen and pelvis, revealed normal intra abdominal and pelvic viscera. The lesion appeared ill-defined, extra-abdominal and predominantly subcutaneous. There was evidence of chronic inflammatory reaction surrounding the lesion. There was no evidence of calcification or atypical blood supply. No similar lesion was detected in the vicinity (Fig. 1). Fine needle aspiration was performed and it showed the presence of inflammatory cells with no evidence of malignancy.

Upon exploration, the lesion was found to be deep in the subcutaneous tissue, and adherent to abdominal wall muscles. It appeared grey-white in color, firm to hard in consistency with central brown discoloration suggestive of altered blood. The lesion was totally excised and sent to histopathology. It was reported as a classical case of endometrioma with no evidence of malignancy (Fig. 2).

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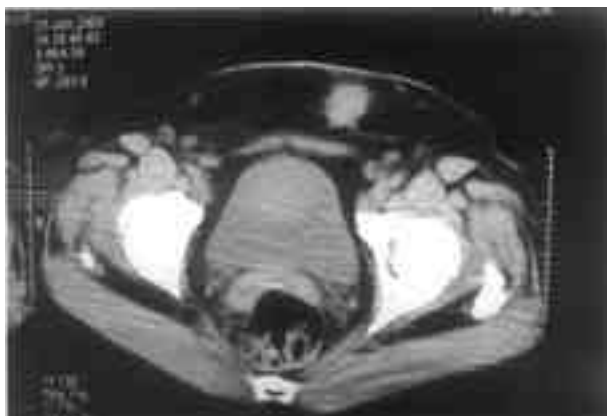


Fig. 1: Lower cuts pelvic CT- scan with contrast showing an ill defined lesion with surrounding tissue reaction, appearing extra pelvic and predominantly situated in the subcutaneous tissue

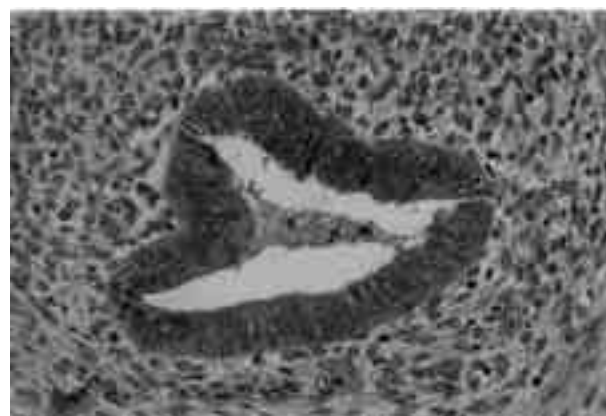


Fig. 2: Sections show scattered dilated proliferative endometrial glands surrounded by endometrial stroma. Moderate mononuclear infiltrate is also noted.

Patient had a smooth post-operative recovery and was discharged in a good condition. Upon out patient follow-up six weeks after discharge, the patient reported that all previously experienced cyclical pre-operative pains had disappeared and she has been pain-free since the excision.

## DISCUSSION

With the rapid progress of medical technology in all disciplines and increased safety in the medical field, the rate of Cesarean Section (CS) has increased over recent years. It is therefore expected that potentially troublesome and rare conditions may be seen more frequently.

Endometrioma is extrapelvic implanted endometrial tissue commonly seen after CS. The term was given because it looks like a mass and yet carries all characteristic of classical endometriosis. It is rare, appearing in 0.1% of women who have undergone CS. It has been claimed that 25% of these women have concomitant pelvic endometriosis<sup>[2]</sup>.

Sporadic cases have been reported following hysterectomy, along the laparoscopy trocar tract, amniocentesis needle tract and following ventriculo-peritoneal shunt<sup>[2-5]</sup>.

On rare occasions abdominal wall endometrioma may develop spontaneously in the absence of prior surgical procedures. Similarly, umbilical endometriosis and liver endometrial cysts were also reported as rare and isolated incidences of non-surgically induced endometriosis<sup>[6-8]</sup>.

As these endometrial extrapelvic implants contain active endometrial tissue, some authors have suggested that the use of contraceptive pills may aid in keeping patients with CS scar endometriosis symptom free<sup>[9]</sup>. However, they were not found to reduce the size of the lesions<sup>[10]</sup>.

Others have hypothesized that inhibitors of angiogenesis would prevent this growth by

disrupting sensitive vessels supplying endometriotic lesions *in vivo*, and this effect is likely to apply to the human disease. These findings suggest that antiangiogenic agents may provide a novel therapeutic approach for the treatment of endometriosis<sup>[11]</sup>.

The diagnosis of abdominal wall endometriomas is often confused with other surgical conditions. To the general surgeon, abdominal wall endometrioma does not usually spring to mind as part of the differential diagnoses of an abdominal wall mass.

As in this case, abdominal wall endometrioma can be a diagnostic pitfall, since it may mimic other lesions of the abdominal wall such as hematomas, granulomas, abscesses, hernias and tumors<sup>[12]</sup>.

Although extensive diagnostic workup including ultrasonography, computerized tomographic scan, MRI and needle biopsy were suggested by some authors, surgical exploration was both diagnostic and therapeutic in most series<sup>[13]</sup> and this case was no exception.

Meticulous wound care may contribute in preventing this complication. It has been suggested that the use of vigorous irrigation of wound edges with high-jet saline solution before closure may aid in dispersing off the minute implants of endometrial tissue from the raw surface of wounds thereby preventing its occurrence<sup>[14]</sup>.

In conclusion, special care should be taken in reaching the diagnosis of endometrioma in a CS scar to avoid this pitfall. It should be considered in the differential diagnosis of ventral hernias and painful abdominal wall masses in women. Associated cyclical pain should be the key symptom when associated with a mass especially when a surgical scar is present. Hormonal treatment may alleviate the symptom of cyclical pain. However, the size is unaltered, and therefore surgical excision remains the treatment of choice.

Extra wound care should be applied in patients undergoing CS or other pelvic procedures, preferably taking an extra few minutes for copious washing at the end of each procedure.

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